



Linkages between LEDS – NAMA- MRV

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International Partnership
on Mitigation and MRV

NAMA PARTNERSHIP

2014

Linkages between LEDs – NAMA- MRV

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1. Introduction

Low Emission Development Strategies (LEDS)¹, Nationally Appropriate Mitigation Actions (NAMAs) and Measuring, Reporting and Verification (MRV) are three of the key conceptual components emerging as part of the global architecture for a new climate agreement by 2015 and for the pre-2020 period. The three components are developed in the context of global and national goals for sustainable development contributing to long term national development goals and priorities.

With an aim to contribute to the development of the global climate architecture for enhanced mitigation actions the objective of this paper is to identify how the three components are conceptually interlinked. Identifying the linkages can inform the work on each component and strengthen coordination of work in the context of the three partnerships; the International Partnership on Mitigation and MRV, the LEDS Global Partnership and the NAMA Partnership.

2. Origin of NAMA, LEDS and MRV concepts

NAMA is a key concept to be used by developing countries to structure and implement their potential emission reductions. Its origins are found in the Bali Action Plan (BAP), which launched a new process to enhance implementation of the Convention. With regards to national/international action on mitigation, the BAP addressed:

- *“Nationally appropriate mitigation actions [...] in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner”*, applicable to developing countries; and
- *“Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives [...] while ensuring the comparability of efforts among them, taking into account differences in their national circumstances”*, applicable to developed countries (UNFCCC 2007, decision 1/CP.13).

After 5 years of negotiation, the Cancun Agreements set the stage for action on mitigation until 2020. These agreements specify that *“developing country Parties will take nationally appropriate mitigation actions [...] aimed at achieving a deviation in emissions relative to ‘business as usual’ emissions in 2020”* (UNFCCC 2010, decision 1/CP.16). This is the first time that a common goal is agreed upon for developing countries to mitigate their GHG emissions (UNEP Risoe, 2013). By focusing on deviation below business as usual, the agreements take into account the development priorities of these countries by addressing only future emissions, and additionally link NAMA development to the provision of support by developed country parties. The developed countries, in

¹ The terms Low Carbon Development Strategies (LCDS) and Low Emissions Development Strategies (LEDS) are used interchangeably, in COP decisions. For consistency we use the term LEDS.

accordance with the principle of common but differentiated responsibilities of the Convention, will reduce their emissions in absolute terms.

The concept of Low Emission Development Strategies (LEDS) was introduced in 2010 in Cancun. It was seen as an instrument to inform the international community on priorities relating to low carbon development and to help gauge the level of global climate change action (OECD, IEA 2010). In the negotiations leading up to the Cancun Agreements some developing countries feared, the LEDS would be a back door to binding emission reduction targets, if support to NAMAs was to be conditional on the development of an LEDS. The development of LEDS is hence voluntary for developing countries while the COP decisions make a stronger recommendation for developed countries to take the lead in developing LEDS.

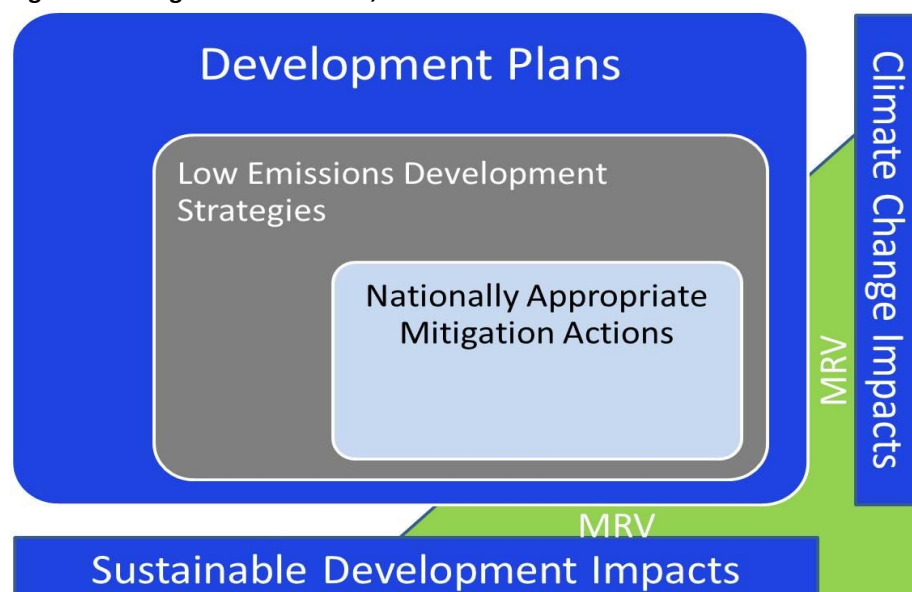
In order to make the voluntary commitments from the countries tangible enough to be able to track progress towards the global 2°C objective and enhance transparency at country level so that efforts in international collaboration as well as national mitigation policies can be adjusted and balanced, such nationally appropriate mitigation actions should be measured, reported and verified.

3. The context of sustainable development

Sustainable development² at national and global levels provides the context for LEDS and NAMAs (Figure 1). A leading principle of sustainable development is the right to sustainable development which is also enshrined in the Cancun Agreement and known as a 'development first' approach (Sathaye, Najam et al. 2007). Following a development first approach the challenge is, how to mainstream mitigation actions into development frameworks to achieve low-emission development pathways that contribute to national development priorities in a sustainable way. National sustainable development goals and priorities are thus the foundation for LEDS and NAMAs. In this context, greenhouse gas reductions represent a positive externality, a co-benefit for sustainable development.

² The principle of sustainable development is defined in the Brundtland Report (UN, 1987) as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Definitions of SD at national level will vary according to countries nationally appropriate development priorities.

Figure 1: Linkages between LCDs, NAMAs and MRV in the context of sustainable development



Sustainable development provides the context for both LEDS and NAMAs. Monitoring and evaluation (M&E), including baselines, methodologies, mitigation scenarios, cost benefit analyses of mitigation options and assumptions, of climate and development impacts and linkages between LEDS and NAMAs can be done at two complementary levels, namely for 1) LEDS with an aim to track progress for transformational change at national level, and for 2) NAMAs with an aim to MRV the sustainable development impacts of concrete actions along with the climate change impacts (Olsen, 2013). In the context of NAMAs, international support in terms of technology transfer and finance as well as capacity-building might be requested by countries for implementation.

4. Low Emission Development Strategies

Though no internationally agreed definition exists, LEDS refer to forward-looking national economic development plans or strategies that encompass low-emission and/or climate-resilient economic growth (OECD, IEA 2010). The Copenhagen and Cancun agreements both recognize LEDS as a key planning tool to define a medium to long term framework for addressing GHG emissions of countries in context of sustainable development.

LEDS are aimed at decoupling economic growth from emissions increases and enable countries to identify and embark on transformative sustainable development programs that will generate economic, social, and environmental benefits.

LEDS thus typically include economy-wide development and emission goals and action plans for achieving these goals. LEDS action plans may be established both for individual sectors and across sectors and include policies, financing strategies and measures, technology development and deployment programs, and capacity building initiatives (UNEP Risoe, 2011). In addition LEDS may provide frameworks for the coordination of national and subnational implementation. Effective LEDS, therefore, combine comprehensive, consistent and holistic development and emissions

reduction goals. National goals for transformational change may be informed by the UN Rio+20 process for global sustainable development goals (SDGs) and the UN Post-2015 Development Agenda that are aligned to achieve a single global framework for poverty reduction and sustainable development by 2015 and beyond (UN, 2013)³.

Figure 1 also sheds light on linkages between LEDS, NAMA and MRV approaches. Monitoring and evaluation is highlighted as an integral and necessary component of LEDS processes that informs all elements of planning and implementation. As noted in sections below, an MRV system provides a foundation for understanding the transformational impacts of LEDS and NAMAs, catalysing finance for low carbon action, and supporting improvements to the strategy going forward. In regards to NAMAs, they are often a critical element of developing finance strategies, public-private collaboration, and national-subnational integration as described in the Colombia example in Section 7. Further, in some cases, as in the Colombia example, NAMAs have been integrated throughout the LEDS process and used to refine and inform the broader approach through “learning-by-doing”. As noted above, the Colombia case is described in further detail in Section 7.

5. Nationally Appropriate Mitigation Actions

NAMAs are any voluntary mitigation action tailored to the national context, characteristics and capabilities, and embedded in national sustainable development priorities with the goal to deviate from BAU emissions (UNEP Risoe, 2013). In other words, NAMAs are a means to deliver development benefits through an alternative that is less carbon intensive. The general recommendation in the literature (GIZ, 2012) is that NAMAs should emerge from national development planning to ensure country ownership and to achieve sustainable development through low carbon options. MRV is an important element of NAMAs for tracking progress on the one hand and for providing the informational basis for planning and implementation on the other hand. NAMAs are typically driven by similar goals and processes as LEDS, which may provide the framing and overarching strategy to inform and guide identification and development of NAMAs.

Each country, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner, will address the scope of NAMAs taking into account their national circumstances, data availability, and institutional capabilities to design and implement NAMAs. It is debated among experts and implementers how NAMAs can contribute to the needed transformational change and how, nevertheless, NAMAs can also be practicable from the standpoint of design and implementation. In order to design and implement such NAMAs, some countries might need technical and other capacity-building support (UNEP Risoe, 2013).⁴

³ Many governments are integrating LEDS with broader green growth strategies to achieve a full suite of sustainable development objectives. Further information on these green growth strategies can be found at <http://ggbp.org> and <http://greengrowthknowledge.org>.

⁴ At a later stage, carbon markets may also be a mechanism in the long run to attract resources for NAMAs. The role of carbon markets in financing NAMAs is under discussion among various stakeholders and includes the concept of credited NAMAs. However, this concept is neither used in any of the official documents nor has it yet been formally established.

6. MRV

MRV, in context of developing country efforts to address climate change, is a term used to describe the process to collect, compile, report (biennial update report and national communications) and verify (international consultation and analysis) of data on emissions in GHG inventories, national mitigation efforts (including estimates of emissions reductions delivered by NAMAs) as well as any financial, technology or capacity building support received and needed. At an individual NAMA level MRV refers to the process to measure, report and verify data on progress in implementing NAMAs as well as impacts (on GHG emissions as well as sustainable development), which would enable countries to report on national mitigation efforts to the UNFCCC. The act of collecting, reporting and verifying such information also enables the country to evaluate the level of success and progress of related actions and expenditures.

Consistently keeping track of National GHG emissions and actions is key to build transparency and confidence in the international climate regime and evaluate collective progress in meeting the UNFCCC global 2°C objective. Furthermore, many instruments to combat climate change only function when reliable data is available. MRV of NAMAs increases the “transparency of mitigation efforts made by the developing countries’ as well as build mutual confidence among all countries” (UNFCCC 2011, Decision 2/CP.17), which is an enabler for financial and technical support by developed countries to the needs of developing countries, and to keep track of such support. MRV will demonstrate that Parties contribute tangible actions to reduce emissions and that developed countries provide substantial support to developing countries.. In this light, MRV of NAMAs entails undertaking measurements of progress indicators or performance matrixes; reporting these measurements and their associated methodologies; and, finally subject them to verification, which could be through third party (see box). As NAMAs, which could be seen as implementation of LEDS, are rooted in sustainable development priorities, from a national perspective, progress and outcomes in terms of sustainable development goals is a key component of MRV.

The components of MRV of NAMAs (UNEP Risoe, 2013)

“Measure”- collect relevant information on the progress and results of the NAMA;

“Report”- communicate the measured information in a transparent and standardized manner;

“Verify” – assess the completeness, consistency, and reliability of the information by an independent process.

From a national perspective, MRV constitutes the basis for countries to assess and track the objectives of climate change policy and, at best, also the achievement of national sustainable development goals, which should ideally govern the design and implementation of NAMA. A good MRV system for NAMAs also provides the necessary basis for developing systems for monitoring and evaluation of the effectiveness of implementation of LEDS, and support the measurement of their transformational impacts. In practice, well-defined MRV arrangements should provide the informational basis for the planning and implementation of mitigation initiatives inside a country. This basis would enable the coordination of bottom-up NAMAs undertaken by a variety of actors; smoothen the international collaboration between investors and implementers, donors and

recipients of international support; and make – long-term transformational - mitigation impacts measurable. Although it has to be stated that many developing countries are facing challenges in establishing a concrete MRV system.

The MRV framework is divided into two tiers (UNEP Risoe, 2013):

THE NATIONAL MRV TIER addresses the voluntary national mitigation obligations of the developing countries, and will be conducted at the international level under the UNFCCC. This tier covers MRV of all the national mitigation efforts and the national GHG inventory⁵. It includes: 1) measuring (M) parameters to prepare the national GHG inventory as well as the estimate mitigation outcomes of NAMAs (in particular in relation to business as usual emissions) 2) reporting (R) of information of these two through Biennial Update Reports (BURs) and National Communications, and 3) independent assessment of the information included in BURs through International Consultation and Analysis (ICA), which is akin to the verification (V) step of MRV. The national communications and biennial update reports are the outcomes of national reporting systems and form the informational basis for planning and implementing mitigation actions and tracking progress towards national objectives. The process for ICA has been well defined by the UNFCCC: BURs will be subject to an analysis by a team of technical experts who will prepare a summary report. ICA will take place through a workshop under the Subsidiary Body for Implementation to consider the BUR and the summary report. ICA's purpose is to identify capacity building needs and help countries to improve their MRV systems over time.

Though, the COP decisions do not require MRV of LEDS, the monitoring and evaluation of outcomes and impacts of implementation is a useful management tool for countries in tracking progress of implementing LEDS to assess the progress in implementation and identify necessary adjustments.

THE NAMA MRV TIER addresses the MRV of NAMAs individually, and will be conducted by the entities in charge of implementing the NAMA and providing financial or any other type of support to it. Standards and requirements for this tier would be set jointly by these entities based on their individual requirements and also taking into account the need for linking to the National MRV tier. On this latter, the MRV framework for an individual NAMA should generate information that is relevant to the national context through the selection of appropriate indicators and methodologies. In this sense, some, but not all, parameters of MRV for a NAMA will be determined top down by national governments.

The MRV of NAMAs helps generate information that could be used to evaluate the implementation of LEDS. Countries still need to develop institutional arrangements for collating this information as well as developing systems for an effective evaluation of the LEDS. Such a national system will also provide a feedback mechanism in evaluating the evolving national and international situation as well as guide future work on identification and development of NAMAs in the country. A domestic MRV would be an effective means to coordinate mitigation action across various actors in the country to ensure synergies with national development priorities.

⁵ The IPCC has developed guidelines for measuring emissions which can be used by Parties to report their emissions against their emission reduction targets. For countries without such targets, there are also approaches how to quantify emission reductions, i.e. the impacts of NAMAs, which can complement and should link into reporting of emissions.

7. Examples of linkages through implementation

When implementing LEDS and NAMAs, countries will engage in domestic action to implement policies, standards, and incentives and deployment programs. In some cases, countries may benefit from linking such domestic action with support from international collaboration bilaterally or through the global architecture emerging from the UNFCCC negotiations, which may be facilitated through robust MRV systems attracting additional finance from investors and donors.

Case Study – Linking LEDS, NAMAs and MRV in Colombia

The Government of Colombia (GoC) started work on development of the Estrategia Colombiana de Desarrollo Bajo en Carbono (ECDBC) in 2011 after the concept of Low Emission Development Strategies was described in the Copenhagen and Cancun agreements. At the same time, the concept of Nationally Appropriate Mitigation Actions (NAMAs) was being understood and translated in developing countries around the world, including Colombia. In Colombia, a NAMA is generally understood as a well-defined sector or sub-sector wide mitigation action that has co-benefits and is aligned with development.

In 2011, the Ministry of Environment began to work with the sectoral Ministries on the development of Sectoral Mitigation Action Plans (SMAPs). As part of this process, the Ministries identified actions that were likely to be prioritized within the SMAPs and began to work with international partners on a few priority NAMAs that aligned with these actions. This early work on NAMAs facilitated a learning-by-doing approach, and the SMAP design process was adjusted several times to reflect lessons learned. To close the loop and support process coherence, the sectoral Ministries were encouraged to include the NAMAs being developed in their final SMAPs. The early NAMAs were particularly informative for the GoC as they provided initial experience in exploring integration of different actors under a single effort, namely the ECDBC, and in linking subnational level actions to a national goal.

Some of the “early action” NAMAs included a Waste NAMA focused on mechanical/biological transformation of waste and changes in regulation and a Transit Oriented Development (TOD) NAMA. The transport NAMA (included in the Transport SMAP) provides a strong example of ECDBC/NAMA integration at different institutional levels (e.g., through national policy, subnational activities, etc.). Key transport NAMA activities include development of a policy promoting sustainable public transportation, design of an institutional framework that will allow transferring of technical assistance to cities, and specific actions that promote integration of urban housing development and transportation.

Since 2011, the GoC produced 5 SMAPs for the Transport, Waste, Mining, Energy, and Oil and Gas sectors. As presented in Figure 4, the strategies are underpinned with robust analysis that fed into public and private stakeholder meetings and high level consultations to support prioritization of actions included in the SMAPs. During the SMAP design process, 23 NAMAs were identified with 4 currently in the design process. The NAMA identification and design process was supported by international workshops convened by the German Government, Center for Clean Air Policy (CCAP), and USAID.

While the Ministry of Environment is the lead institution for the ECDBC process in Colombia, MAVDT works closely with the National Department of Planning (DNP) to ensure the strategy is well-positioned for implementation. For example, SMAP implementation strategies are being developed in partnership with DNP to ensure activities are integrated with the national budget. Line ministries have also actively

engaged with the ECDBC process. Technical experts within each key line ministry led/are leading ECDBC activities including: inter-ministerial coordination, data collection and analysis, stakeholder consultations, development of SMAPs, and identification of NAMAs.

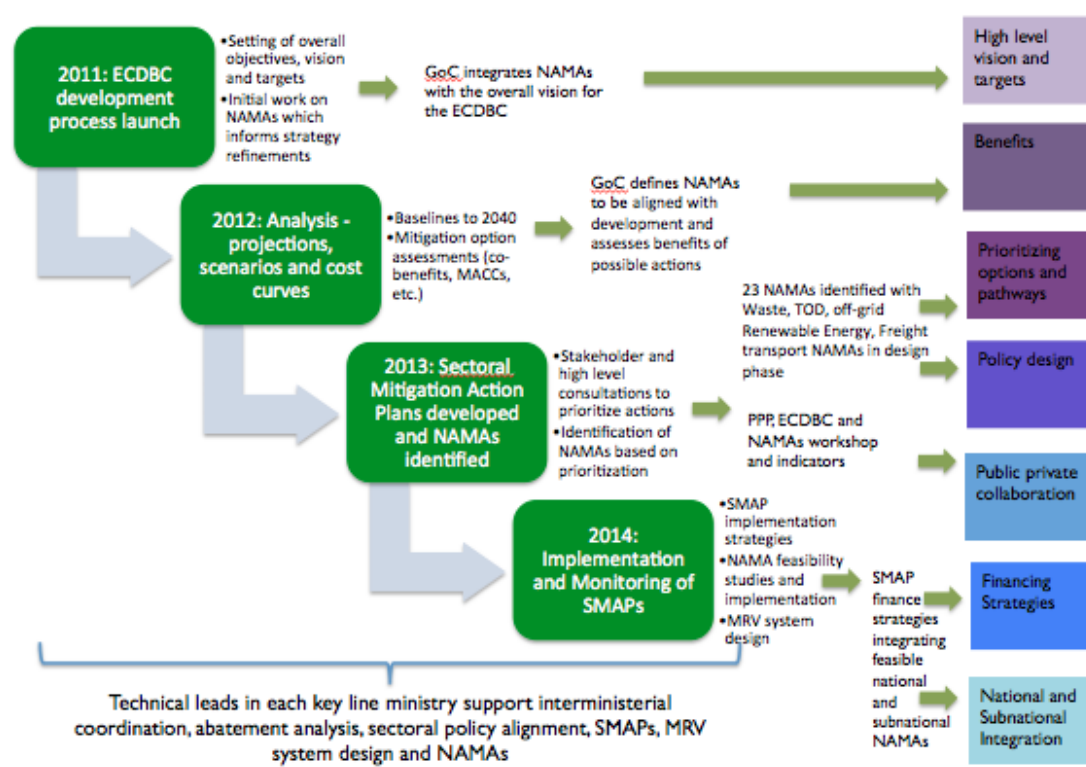
In regards to MRV, GoC is working on a centralized system to track progress of the SMAPs (including NAMAs, policies and programs). During 2014, specific tracking indicators for each SMAP measure will be designed and integrated with the centralized system. GoC is currently considering how to most effectively link the MRV systems/methodologies of specific NAMAs with the centralized system under this approach and how to integrate existing sectoral data management systems.

The ECDBC process demonstrates some key links between LEDS, NAMAs, and MRV.

- **High-level vision and targets** – Since beginning work on the ECDBC in 2011, the GoC has conceptualized NAMAs to be a key element of the overall vision for the strategy. This was demonstrated through Colombia's early work on NAMAs that were integrated with the broader ECDBC and which helped to inform and refine the evolution of the strategy over the last 3 years.
- **Benefits** – In Colombia NAMAs are described as well-defined sector or sub-sector mitigation actions that have co-benefits and are aligned with development, therefore, assessment of benefits of NAMAs is a key consideration in identifying and prioritizing opportunities.
- **Prioritizing options and pathways** – NAMAs were a key output of the ECDBC prioritization process and integrated with the SMAPs.
- **Policy design** – A number of NAMAs in development and consideration in Colombia focus on policy action. One example is the transport NAMA that includes development of a national policy promoting sustainable public transportation.
- **Financing strategies** – In 2014 GoC will be developing SMAP implementation plans; a key element of these plans will be inclusion of feasible NAMAs identified through NAMA feasibility studies planned to be undertaken this year.
- **Public-private collaboration** – Stakeholder consultations brought together the public and private sector to consider and prioritize actions (including NAMAs) to be included in the SMAPs. Specific ECDBC NAMA workshops were also held to educate and inform private developers of NAMA and LEDS opportunities and to consider public private partnerships (PPP) for ECDBC and NAMA implementation. Based on outcomes from the PPP workshop, DNP proposed development of indicators for integrating LEDS and NAMA criteria with PPP processes.
- **National and subnational integration** – While the SMAPs are focused at the national level they include NAMAs (and other actions) that will occur at the subnational level, notably, a number of transport actions included in the TOD NAMA. GoC will soon hold an ECDBC workshop bringing together municipal level transport planners to support implementation of transport actions at the subnational level.
- **Monitoring and Evaluation** – MRV is a key aspect of the ECDBC process in Colombia and the planned MRV system will integrate MRV of the ECDBC and specific NAMA actions.

Key links (noted above) between LEDS, NAMAS and MRV are highlighted in the diagram below outlining the ECDBC process in Colombia.

Figure 3: ECDBC and Alignment of NAMA Activities with LEDS/Green Growth Process Elements



The Colombia ECDBC provides a strong model for streamlining and integrating LEDS, NAMA and MRV processes. This example could be used to support learning and information sharing among countries on integrating these components of climate change planning at a practical level.

8. Conclusions

In a top-down perspective, LEDS will provide an overarching national policy framework for NAMAs and support the definition of mitigation goals and implementation of mitigation actions aligned with a country's long-term vision for sustainable development. LEDS will also ensure coherence across NAMAs and consideration of synergies across NAMAs and sectors. In this sense, sectoral studies, inventory systems, baseline emission scenarios and cross-sectoral LEDS analysis will provide a robust foundation for prioritizing and selecting NAMAs.

In a bottom-up perspective, NAMAs, which are often implemented at the subnational level, can link LEDS to subnational planning processes. NAMAs can build on LEDS analysis to provide more strategic assessment of specific actions or projects. As mitigation actions implemented on the ground, NAMAs can have significant near-term positive impacts that can help to build support for longer-term LEDS overall. LEDS and NAMAs can thus complement each other analytically (LEDS Global Partnership, 2013).

Monitoring and evaluation systems provide an overall framework for evaluating progress of implementation of mitigation actions and climate policies. MRV of NAMAs provides concrete tools for measuring and reporting on impacts of individual actions consistent with this overall M&E framework. MRV can thus enhance transparency at domestic and international level and serve as a management tool in the process of developing NAMAs and LEDS and is useful for the evaluation of actions and strategies in order to adjust the objectives and plans over time. However, MRV of NAMAs should always link into MRV of emissions in order to increase transparency and complement the information on emissions from a country.

LEDS, NAMAs and MRV are thus complementary concepts to shape national climate frameworks and facilitate actions that contribute to emissions reductions and sustainable development objectives.

Further readings on the linkages between LEDS, NAMAs and MRV:

<http://www.mitigationpartnership.net/major-topics>

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